National Park Service U.S. Department of the Interior

Fort McHenry National Monument and Historic Shrine Baltimore, Maryland



# Fort McHenry *Alternative Transportation Study*

# **Appendix Listing**

Appendix A Appendix B Appendix C

May 2004



# **Appendices**

### Appendix A: Stakeholder Interview Summaries (page A2)

A complete listing of notes from the stakeholder interviews conducted by the AT study team.

### Appendix B: External Sources Bibliography (page A10)

A list of sources, such as maps, information about other Baltimore cultural institutions, and municipal and regional plans provided—usually by stakeholders—to the study team.

### **Appendix C: Transportation Elements (page A12)**

A tabular presentation of the transportation elements.

# Appendix D: Gate Area and Bicycle/Pedestrian Enhancement Options (separate, attached document)

Detailed information—including renderings and cost estimates—prepared by Kyle Zick of Carol R. Johnson Associates.

### Appendix E: Dock Enhancement Options (separate, attached document)

Detailed information—including renderings and cost estimates—prepared by David Porter of Childs Engineering.

#### Appendix F: Transportation Assistance Group Report (separate, attached document)

The original Transportation Assistance Group report from the February 2002 TAG visit to Fort McHenry.

# **Appendix A: Stakeholder Interview Summaries**

A complete listing of notes from the stakeholder interviews conducted by the study team.

#### **Stakeholder Interview Summaries**

Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Raltimore DOT	l road maintenance/construction; traffic management	Richard Chen	Meeting at DOT on Sept. 25, 2003, attended by Chen & Joseph David (DOT), Eldon Miller (MPA), Strickfaden, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Interested in local road transportation; involved in Key Highway extension (current plan is to put out for bid by December). BDOT is responsible for all city roads and would be a necessary partner for any bicycle/pedestrian access enhancements.

#### Partnership opportunities

Provide information (traffic data, GIS data, construction progress, mitigation efforts) related to Key Highway extension & to local roads. Possible partner for Fort Avenue bicycle/pedestrian amenities - bike path from Key Highway extension to Tide Point and then through Locust Point neighborhood and Fort Street. Current plans do not call for a striped bike path, but include either a 10' wide sidewalk or a 5' sidewalk and 5' grass strip (DOT not clear on this detail).

#### Additional meeting notes

Had additional information & graphic plot entitled "Concept Plan of Improvements for Proposed North Loop Road and Tide Point Master Plan for Future Improvements" (STV Inc., 5/20/03). David Marc is Key Highway extension project manager. No involvement in water transport. CSX owns the 2 bridges over Fort Street. The Tide Point office park will eventually employ 2000 people.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Greater Baltimore History Alliance	Thistorical attractions (some of which are		Meeting at Babe Ruth Museum on Sept. 23, 2003, attended by Gibbons, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Effective visitor transportation in Baltimore, as well as orientation signage, particularly in area west and north of the Inner Harbor. Identified visitor transportation and signage as two big problems in Baltimore.

#### Partnership opportunities

Interested in funding and running own shuttle, in coordination with several other attractions (B&O Museum, Hippodrome, BACVA visitor center), the Babe Ruth Museum, and the new sports museum to be located at Camden Station (projected for May 2005). The service would be seasonal at the start, possibly expanding to year-round. Mr. Gibbons also cited the need for visitor along the N - S axis on Charles Street to connect the Mt. Vernon district. He would be interested in collaborating with Fort McHenry ("meet the Fort halfway") and suggested that the new BACVA Inner Harbor visitor center would be a good nodal connector for west (his "arts" loop) and east (to Locust Point/FOMC) transportation systems.

#### Additional meeting notes

Earlier shuttle bus routes have failed. No transportation currently provided to visitors who want to go to the "Wild West" (west of Charles Street). Also, poor transport to Mt. Vernon's cultural attractions and to U. of Md. Visitation to new Camden Station facility projected for ~290K/yr.; could actually be as high as 500K-700K. Babe Ruth visitation is currently 35K-40K/yr., but neighborhood isn't tourist-friendly.

#### **Stakeholder Interview Summaries** (continued)

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Kane Water Taxi			Meetings at Kane's on Aug. 7 and Sept. 24, 2003, attended by Kane, and Dyer & Plosky (Strickfaden on Aug. 7)

#### Stakeholder transportation interests, vis-a-vis FOMC

Provides water transportation throughout Northwest Harbor, including Inner Harbor, Fells Point, Canton, and Locust Point. Carries roughly 30,000 to 40,000 visitors/year to Fort, using a jitney bus from a privately owned landing at Tide Point. Kane Water Taxi could provide service directly to Fort dock, under the right conditions.

#### Partnership opportunities

Will continue to provide visitor transportation. Could coordinate in order to increase ridership, though the service should not receive preferential treatment compared to other operator. Additional promotion/awareness building among visitors. Possible transportation/entrance fee combination; interpretive component aboard boats? Also possible multiple transit fee arrangement with public or private surface transit operator. Could run boats directly to Fort under right circumstances.

#### Additional meeting notes

Fort McHenry is an underrated attraction; blame Balto. & Md. for lack of awareness/promotion. The Fort is part of an "organic waterfront." Interest in tying Tide Point land in with Locust Point history. Fells Point traffic is up from 32,000 in 1989 to 400,000 now. Twenty-seven years in business (Aquarium for only 25 years). Would like to see ferry riders (\$) originating at park, though would require outside parking. Combined ferry and jitney service is cheaper than boat all the way to Fort. Expanding ferry services (Canton et al.). "Purple shuttle bus" downtown didn't work. Agreeable to one harbor operator, but expect to be the operator, or to negotiate with Seaport. City consolidate maritime operations in one Fells Point building? Old trolley system (Inner Harbor -- Mt. Vernon {important destination} - B&O) ran for two years; tripled ridership in 2nd year; Kane offered to invest in combined land/water system, but idea died. Downtown Partnership, founded on Charles Street, should consider shift of "downtown" to Inner Harbor. Baltomore Department of Public Works administers dock contract -- best arrangement? "Ping-pong boat" from Tide Point to Fells Point.

Sells "frequent-floater" pass, annual for \$40 (or \$35) - 3500 sold, mostly to residents/Tide Point workers. Fleet has 13 boats, all "T boats", "Rivers" service, 26 - 88 Passenger, 170 - 300 horsepower.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Baltimore Metropolitan Council (MPO)	Metropolitan/regional planning for Balto.	IBill Bruce	Bruce declined meeting; Plosky corresponded by e-mail with Bruce (e-mail from Bruce Sept. 26, 2003)

#### Stakeholder transportation interests, vis-a-vis FOMC

Promoting transit in and around Baltimore; expanding Fort's role as partner in those efforts.

### Partnership opportunities

Seem limited, but do want to be involved with respect to transit improvements.

### Additional meeting notes

In e-mail, provided info. on regional shuttle bugs operated by MTA; said that 2001 Maryland Comprehensive Transit Plan actually listed 8 more but these were canceled due to budget concerns, including one lobbied for by Historic Federal Hill Main Street, a local non-profit. South Balto. shuttle would be good, though, especially since friendlier than regular bus. MTA/water reciprocity is good -- needs more promotion? Fort offer incentive to water riders to spur ridership?

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
•	Administering port facilities and related lands; supporting industrial activities	IEldon Miller	Meeting at Balto. DOT on Sept. 25, 2003, attended by Miller, Chen (Balto. DOT), Strickfaden, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

MPA wants to maintain the long term capacity of the North Locust Point Marine Terminal (NLPMT), and therefore to keep industrial waterfront parcels from being developed as residential/commercial. Long term trade increase projections (doubling or more in the next 20 years) drive this concern. Port security and security of the access road are also concerns.

#### Partnership opportunities

MPA-owned parking lot may be opportunity for FOMC, but MPA wants ample parking in case of increased industrial employment (lot used by ILA workers). Due to labor issues, MPA has not provided an easement for Steinweg (non-union site) trucks to use MPA access road instead of Fort Avenue.

#### Additional meeting notes

May be able to provide GIS data. MPA office at World Trade Center was flooded, disrupting communications. Westway liquids handling site may expand to Pier 8.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Maryland Heritage	State office of tourism & development (not just Balto.): work on bringing visitors to Md. & get them to spend time, money	IMarci Ross	Meeting at Ross's office on Sept. 26, 2003, attended by Ross, Joss, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Interested in bringing visitors to Balto. & having them spend time and money. Interested in using Fort as "draw" for conventions, special events, etc.; Fort as integral part of trails, etc. that can be included in tourist information. Fort especially appealing to "historic" and "cultural" travelers who tend to spend more time and money, and be better informed, than tourists in general.

#### Partnership opportunities

At local level, works with BACVA & FOMC to promote visitation; communicates info to travelers, especially "historic" and "cultural" types. Operates 13 welcome centers around state & sends out informational materials requested by mail, phone, web. Does tour-guide familiarization/orientation with Fort; guides go to Fort to learn about it. Plays a role in Star-Spangled Banner Nat. Hist. Trail feasibility study (FOMC coiuld be the hub site), Balto. Civil War Trail, Chesapeake Bay Gateways Network, East Coast Greenway (bike trail opportunity). Can provide visitor demographics/survey data. Bring conventions to Balto. partly using Fort's "flag appeal." State highway signage for attractions like Fort (MUTCD specifications).

#### Additional meeting notes

Visitors coming via privately operated cars from farther away (Boston, S.C., Ohio) in recent years. Project ~1m visitors at Fort in 10 years. Min Park, 410-767-6285, is research/data contact. NPS HQ projects 1M FOMC visitors/year by 2013.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Baltimore	Downtown safety, navigability,		
Downtown	beautification; promotion of business	Marshall Snively	Meeting on Sept. 26, 2003, attended by Snively, Joss, and Dyer & Plosky
Partnership	climate in Charles St. corridor		

#### Stakeholder transportation interests, vis-a-vis FOMC

Focused on business community within "Business Improvement District" (106 blocks, 1400 properties); commuters/workers -- but also beautification, navigability, and safety of downtown area. Would be interested in partnering with Fort if Fort can somehow advance these goals.

#### Partnership opportunities

Involved in pedestrian wayfinding/signage program within Balto. Streetscape/sidewalk maintenance/beautification. Involvement in regional rail plan under Gov. Glendening. Runs DASH shuttle.

### Additional meeting notes

Provided print materials. Tourist bus service "didn't last long." Not involved with water transport.

	keholder anization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Baltimo	ore Maritime	Steinweg: corporate mission; Balto. Maritime Association: promotion of industrial maritime activities	Kupert Denny	Meeting at Steinweg on Aug. 6, 2003, attended by Denny, Strickfaden, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Interested in Fort Avenue traffic situation & movement of its own trucks, which pass by FOMC gate. Maintenance of Locust Point as industrial area.

#### Partnership opportunities

Possible truck/congestion management? Steinweg could potentially receive MPA easement removing trucks from area in front of Fort gate. Also, Steinweg owns a building directly outside the Fort gate that could be a site for a new education/administration facility, and also owns/has access to several land parcels right outside the gate. Steinweg property also has gates, etc.; possible overflow parking? Andre Street as alternative access point? Steinweg is "willing to invest to fix" the transportation situation but needs workable plan. Conflict between MPA, Steinweg on labor issues.

#### Additional meeting notes

No real interaction between Fort visitors & Locust Point community, but Locust Pt. Business Assoc. not really interested in capturing/tapping into tourists. Community concerned about buses clogging Fort Ave. (parking, not in transit). Conflict between new residents and commercial tenants who object to noise/atmosphere of working industrial port.

	eholder nization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Marylan Transp	nd Dept. of portation	State DOT; includes MTA and MPA as sub agencies (not independent authorities)	Judy London	Meeting at MDOT's Hanover facility on Aug. 7, 2003, attended by London, Joss, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Working on Master Plan for Port of Balto. -- industrial retention program as primary goal; Locust Pt. is one focus area. Done fall '03? Exec. summary (Dec. '02) avail. for Locust Pt.

#### Partnership opportunities

Interested in Key Highway extension, possible improvements to Andre St./I-95 connection, and Locust Point land use. PLUTAC advisory council (planning & land use) exists and FOMC could provide input.

#### Additional meeting notes

Provided draft land-use map of Locust Point. No state money available for expensive project proposals. Difficulty advancing plans.

I	Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
I	<b>Locust Point Civic</b>	Represent interests of Locust Point	Iovce Bauerle	Meeting at Fort on Aug. 7, 2003, attended by Bauerle, State Sen. George
ı	Association	residents	Joyce Bauerie	Della, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Keep congestion manageable; serve transportation needs of residents; preserve industrial character of Locust Point; head off large-scale residential/commercial developments to attract non-Locust Pt. residents; secure jobs & investment opportunities for Locust Pt. Residents are pro-Fort and enjoy its presence; they're proud of it.

### Partnership opportunities

Support from community for expanded ferry/transit service, expanded amenities at Fort.

#### Additional meeting notes

Ferry service originating at Fort would be supported by residents (not currently allowed because Fort doesn't want visitors parking their cars there for free and riding the boats). Della supportive of area; 3200-3300 residents. Development planned for old ADM parcel (hotel/townhouses/apartments/parking). Rezoning after next election? Sen. Della says his office has population and demographic figures.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Balto. Maritime	Museum operations/park's friends		Meeting at Fort, Aug. 6, 2003, with Kellet, Joss, and Dyer & Plosky
Museum/Patriots of	group/educational and interpretive non-	John Kellet	attending
Fort McHenry	profit organization		

#### Stakeholder transportation interests, vis-a-vis FOMC

Interested in water transportation and transportation among cultural institutions in Balto.; unsuccessful at negotiating water-transport consolidation. Alex Washburn, former aide to Sen. Moynihan & now of W Architects, authored study for \$50m ferry system with Andy Murray of National Historic Seaport (a subsidiary of Living Classrooms), on behalf of the city.

#### Partnership opportunities

Can send examples of TEA-21 projects that got federal funding for Balto. City (for which N.H.S. facilitated the contracts). Washburn got \$91m under ISTEA for NYC ferry improvements. Also, collaborate on existing water-transport system and cross-institutional promotion.

#### Additional meeting notes

Considerable overlap between these organizations. Friends group is actually part of Living Classrooms, but Kellet wants it to be independent again. Also involved with Balto. Waterfront Promenade Partners, but this is organization least involved with Fort. Kellet mostly focuses his time (~70%) on being the director of the Balto. Maritime Museum.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
US Naval Reserve	Naval Reserve facility		Meeting at NRC on Sept. 23, 2003, attended by Reed, Joss, and Dyer &
Center, Baltimore	,	XO	Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Secure access & parking for USNR personnel, especially during heightened security/military/emergency operations.

#### Partnership opportunities

USNR does currently allow for overflow parking for Fort personnel (support staff or re-enactors, not general public) on its site, from time to time, as agreed on a case-by-case basis. However, they cannot guarantee access (can't enter into contractual arrangement) for park purposes, owing to security concerns. Nonetheless parking can generally be worked out, given advance notice, unless it's a drill weekend (too many people) or security is tightened. Currently, issue is "personality"; Fort & USNR staff get along well and except for conditions mentioned, USNR wouldn't refuse park access to parking area under foreseeable circumstances, even if park makes frequent requests. Nonetheless, possibility of reconfiguring land/parcels? Congressional interest?

#### Additional meeting notes

USNR holds ceremonies, such as change-of-command, at Fort; Fort gives USNR personnel tours. ~550 reservists on site; dock and two 70' boats; damage control trainer on-site. Facility flooded/damaged during Hurricane Isabel, Sept. '03. About ~100 cars need parking each weekend; 20-40 on a regular workday.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Struever Bros., Eccles, Rouse Inc.	Residential/commercial developers	II arry W/hite	Meeting at Tide Pt. on Sept. 23, 2003, attended by White, Strickfaden, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Interested in Key Highway extension, expanded ferry services, and possible "shuttle bug" service. (All are transportation services connecting the Balto. area network to Tide Point.)

#### Partnership opportunities

Kane uses Tide Pt. dock for FOMC jitney service; this is successful. Also, boat between Fells Pt. and Tide Pt. (15' headway) is successful. Link with/expand upon these services? Continuation of harborfront promenade from Inner Harbor? Immigration museum next to Tide Pt. -- possible additional draw.

#### Additional meeting notes

Currently 1100-1200 employees at Tide Pt.; most drive. Domino's property cuts off promenade route from Rusty Scupper/Inner Harbor. Tide Pt. owns its own dock; owns harbor promenade it built in front of its own property, and granted city an easement. Possible restaurant developed there in connection with new museum (tourist draw)? Struever also runs shuttle in Fells Pt. -- from Bond St. to Hopkins -- would have been taken care of by city shuttle system, if that had been implemented. More development on waterfront -- condos, apartments, offices. About 1,500 new residential units in near future in Fells Point area and east. Trend continuing.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
National Historic	Part of Living Classrooms Foundation	Andy Murray,	Meeting at Fort on Aug. 7, and at Seaport on Sept. 25, 2003, attended by Murray, and Dyer & Plosky (1st meeting also by Joss & Rowsom of Constellation)
Seaport	(education); also operates Seaport Taxi	Director	

#### Stakeholder transportation interests, vis-a-vis FOMC

Provides not only educational/cultural/historical information and opportunities, but Seaport Taxi provides water service directly to Fort. Multifaceted mission, including interpretive guides aboard, info about other Historic Seaport attractions. Living Classrooms involved in many different activities. 75% of business from Harbor Landing.

#### Partnership opportunities

City agreement for landings includes commuter service requirement. (run Canton to Inner Harbor) Expansion of service to Fort? Rerouting, so one-boat ride from Inner Harbor? With Kellet of Balto. Maritime Museum/Patriots of Fort McHenry, commissioned study proposing \$50m ferry system; sent to Congress. Service requirements (commuter operations) of Balto. wharf-lease agreement. Curently accept MTA passes and get \$1.25 reimbursement for every boarding.

#### Additional meeting notes

Operates 11 boats between 25 pax. and 100 pax; mostly outboard diesels. Handicapped accessibility an issue; being sued by at least one individual. Supports eventual merge/selection of one operator in Inner Harbor. 6 kt. speed limit in Inner Harbor. On busy weekends, both water services at capacity, split ridership about 50-50.

	keholder Janization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Mary	land Transit	Provision of transit services in Md.	Beth Robinson &	Meeting at MTA on Sept. 25, 2003, attended by Robinson, Dougherty,
Adm	inistration	Provision of transit services in Md.	Larry Dougherty	Strickfaden, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Provides transit service in Balto. -- No. 1 transit bus to Fort, light rail, subway, other buses, and "shuttle bug" systems. Geared mostly to commuters but does put out visitor brochure.

#### Partnership opportunities

Expansion of No. I bus service and routing buses into FOMC are possibilities. More promotion? New shuttle bug service serving South Baltimore (as proposed -- languished due to lack of funds)? Can provide transit data and more detailed information for Fort McHenry stop. Examples of Balto. Museum of Art and Balto. City Zoo -- worked with partners to run new services (zoo co-funded) -- precedent for partnership. Partners led charge/funding. There is no operational partnership with Baltimore DOT.

#### Additional meeting notes

"Shuttle bugs" are very expensive. Pass reciprocity with Water Taxi/Seaport Taxi. No schedule coordination/intermodalism (too difficult). No major investments or long-range plans in progress except double-tracking light rail. "Survival mode" in terms of finances.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Convention &	Promotion of Balto. as convention center & visitor attraction		Meetings at BACVA on Aug. 7 and Sept. 26, 2003, attended by Hansen/Strickfaden (1st), Pietryka/Joss (2nd), and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Involved in bus parking/management (tour/convention buses) -- designated parking areas in city (Ravens stadium). New visitor center to open December; possibly use eventually as intermodal transportation center. Provides information to visitors and conventioneers, including info. on transportation & on local attractions.

#### Partnership opportunities

Provide info to visitors through BACVA mailings/web. Coordinate bus management. Use of new visitor center as transportation hub? Streetside dropoff config. by Balt. Development Corporation (Possibly 500K visitors/year in 1-2 years; BDC should have info on bus drop-off area component of project.) BACVA has good relationships with both water operators. Current transport partner is Baltimore Shuttle, run by Darryl Butler.

#### Additional meeting notes

Has visitor data & other information we could go through. Data: 7.5m leisure, 3.5m business visitors a year. Pretty constant past few years. New Visitor Center will open in January 04; 6,500 ft^2, 80 staff, boat landing very close by.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Baltimore City Planning Dept.		Leinherg Reth	Meeting at City Plg. Dept. on Aug. 6, 2003, attended by Pencek, Feinberg, Strommen, Joss, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

City heritage area planning; enterprise zone (Fort/Locust Pt. is one of 8 in Md.); proposed new (bike) trails: Star-Spangled Trail. 'All-American Road,' starting pt. of National Road. Civil War Trail. Nat'l Historic Seaport Trail. Gwinns Falls Trail. Johns Falls Trail. Afr.-Am. Trail (wheeled)? Spine of East Coast Greenway. Fed'l Hill/FOMC bike trail on hold, awaiting funding. Chesapeake Bay Gateways Project? (Balto. Maritime) Harbor Master Plan, and Inner Harbor Master Plan (landside).

#### Partnership opportunities

City owns ferry docks, including one at Fort; wants to consolidate to one operator, 90% chance to put out for bid by one operator March '04, but current contracts may be extended, since city DOT is late. Expand NPS/municipal partnership, as in Lowell/Boston?

#### Additional meeting notes

Shuttle buses in CBD don't work well; MTA shuttle-bug program canceled by state. State will determine cruise-ship terminal status. Most heritage area plans in early stages; trails and greenway projects in very preliminary stages. Landing contracts with ferry operators near end (03-2004) (although some confusion, as one operator says 6 years to go?). 2-operator system inefficient, contemplating RFP for single entity. City needs more commuter services.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
	Promote industrial (commercial) development in Balto.	H arisa Salamacha	Meeting at BDC on Sept. 26, 2003, attended by Salamacha, Joss, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Push for investment in transportation \$ by other agencies. Maglev project, Balto.-DC, headed by Phyllis Wilkins, formerly of BDC, now in mayor's office. Don't do "active transportation planning for the future" or how to move visitors around city.

#### Partnership opportunities

Limited. We can be in touch with BDC about transportation component of new BACVA visitor center. BDC coordinates all agencies in developments involving land use. Facilitated Key Highway extension. Working with Saperstein, purchaser of ADM property in Locust Pt.

#### Additional meeting notes

Consultant team hired by city to look at Inner Harbor master plan -- link on BDC web site. BDC president on Inner Harbor Task Force. Salamacha is city's representative on MDOT PLUTAC master-plan advisory committee. BDC led Inner Harbor Master Plan; Strommen of City Planning doing Marina Master Plan.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
U.S.S. Constellation	Promotion of U.S.S. Constellation as		Meeting at Fort on Aug. 7, 2003, attended by Murray of Seaport, Joss, and
ololol constellation	tourist attraction	Exec. Director	Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Providing visitor circulation among Balto. attractions. Worked with Murray on \$50m ferry study.

#### Partnership opportunities

Coordinate transportation, signage, promotion. Rowsom involved in Historic Seaport and works closely with Andy Murray.

#### Additional meeting notes

Can provide visitor data for people visiting Constellation (100,000/year); probably mirrors demographics of Inner Harbor as a whole.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Museum of Industry	Promotion of Museum of Industry as tourist attraction	Paul Cypher	Meeting at Fort on Aug. 7, 2003, attended by Cypher, and Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Near FOMC, off Key Highway; currently receives visitors by water (Seaport), but on irregular schedule -- would like regular schedule.

#### Partnership opportunities

Collaboration on proposal to run a Key Hwy passenger van – Visionary Arts Mus. – Science Ctr. – Museum of Industry – Fort McHenry – Inner Harbor/new vis. ctr. Spring '04? \$40-50K per year to run. Possible parking at M. of I. (free; expanding from 210 to 320 spaces, though rarely fills up). Working with Andy Murray/N.H.S. on more (and more scheduled) water service.

#### Additional meeting notes

Regional visitors coming from as far as Pennsylvania, Virginia -- families with kids, school visitation groups.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
Balto. Office of	Communicate info about arts/cultural	Bill Gilmore	Meeting at B.O.P. on Aug. 7, 2003, attended by Gilmore, Strickfaden, and
Promotion	events (mostly special events)	Bill Gilliote	Dyer & Plosky

#### Stakeholder transportation interests, vis-a-vis FOMC

Works with city DOT on traffic issues (street closures, etc.) that are part of special events or conventions. Promotes MTA service, works with water operators. Outreach.

#### Partnership opportunities

Collaboration on outreach; coordination for special events. Not involved in general day-to-day transportation planning or operations.

#### Additional meeting notes

Involved with events like parades, tall ships, 2006 Volvo Ocean Race, etc. Also city's arts organization -- grants, etc.; "1% for art." Property managers for Pier 6 concert pavilion, etc. Works with Fort on special events such as July 4 fireworks, when Inner Harbor has specific transportation/security concerns. Fort doesn't like to promote itself as a venue for things like fireworks, tall ships. Prefers park-specific things.

Stakeholder Organization	Stakeholder Mission	POC(s)	Meeting Thumbnail
FOMC bus reservations		Susan Wright	September 23 meeting, Wright and Dyer & Plosky

#### Partnership opportunities

[Opportunities to improve transportation system:] Currently, SuperOffice software used to manage bus/tour reservations, along with separate hard copy of

no-shows/cancellations, are rare. Work only with N.H.S. as far as other tourist groups go; no one else. Most buses do make reservations but some show up unannounced; no bus groups for special events, oddly. Up to 40 buses a day at worst. Each Friday during peak season, Susan sends bus schedule to chief ranger and maintenance chief. Confirmation letter sent to groups. Groups down in '01, '02, '03 compared to previous years. Balto. Rent-a-Tour accounts for ~10% of adult groups? Difficult to search with existing SuperOffice system.

#### Frustrations:

- I. Limited hours (II-12) avail. for Susan to take reservations, which are preferred by phone, but voice mail, fax, e-mail also OK, though Susan must confirm these.
- 2. If Susan is out, other rangers "sort of know" how to operate system, but not smoothly.

#### Additional meeting notes

NΑ

**Appendix B: External Sources Bibliography**A list of sources, such as maps, information about other Baltimore cultural institutions, and municipal and regional plans provided—usually by stakeholders—to the study team.

# **External Sources Bibliography**

	NAME	SOURCE	DATE
	Port Land Use Map Recommendations	MDOT	23-Jun-03
	Baltimore Destination Planning Guide	Covention and Visitors Assoc.	2003
	Fort McHenry Battle of Baltimore Guide	National Park Service	2002
des	Discover Fort McHenry	National Park Service	no date
ji,	Maryland Transportation Map	MDOT	2003
Maps/Guides	Baltimore's Original Harbor Travel Guide	Genesis Publishing	2003
Za	Chesapeake Bay Gateways Map	Chesapeake Bay Program Office	2003
	Baltimore's Attractions Guide	Balt. Visitor's Association	
	Baltimore and Vicinity Road Map	Color-Art, Inc St. Louis	2003
	Harbor Pass Handout	Balt. Visitor Center	2003
	Mondawmin – Fort McHenry Metro Operating Information	MD Transit Adminstration	no date
1_	Ed Kane's Water Taxi Guide	Harbor Boating, Inc.	2003
Maps/Public Transportation Information	MTA Systems Maps	MD Transit Adminstration	2003
ırta	National Historic Seaport of Baltimore Map	Living Classrooms Foundation	
spo on	Baltimore Harbor Guide featuring Seaport Taxi	Impact Assoc.	2003
ran	MTA Light Rail Double Track Project Flier	MD Transit Adminstration	2003
ıblic Transp Information	MTA Light Rail Schedule and Map	MD Transit Adminstration	2003
la F	MTA Fare Guide	MD Transit Adminstration	2003
J/SC	MTA Visitors Ride Guide	MD Transit Adminstration	2003
Mal	MTA Neighborhood Shuttle Service Schedules	MD Transit Adminstration	2003
	MARC Train Service Rider's Guide	MD Transit Adminstration	Dec-oi
	Maryland Direct	Archaelogy Today	19-Apr-01
	Request for Baltimore GIS Data	Mayor's Office of Tech.	3-Oct
	GIS Data	Maryland State Geographic Information Committee	current
	Pop/Demographic Locust Point Data	Office of Sen. Della	current
	Detailed Neighborhood Profile	Balt. City Dept. of Planning	3-Jul-o1
	2001 MD Comp. Transit Plan	Balt. MPO	ı-Jun-oı
	Balt.Inner Harbor Master Plan Framework	Balt. City Dept. of Planning	3-Feb-o3
State/City Reports	Transporation Enhancement Program Proposal for the Balt. Waterfront Promenade	Living Classrooms Foundation and Balt. City Dept. of Planning	Sept. 1998
' Re	Fort McHenry Comprehensive Interpretative Plan – Nov2002	dept.of Housing&Comm. Dev.	Dec-02
l Ë	Fort McHenry Education Center List of Needs	National Park Service	31-Jul-03
ıte/	Fort McHenry State of the Park Report 2002	Fort McHenry Superintendent	2002
Sta	USS Constellation Visitation by State	Chris Rowsom	Sept. 03
	Fort McHenry Proposal for Transportation Planning Services	National Park Service	2001
	Baltimore Metropolitan Area Water Transit System Proposal	W Architecture	10-Mar-03
	Maryland FY2004 Tourism Development and Marketing Plan	MD Office of Tourism Dev.	2003
	Baltimore City Heritage Area Management Action Plan	HRG Consultants, Inc.	Sep-oi
	Fort McHenry National Monument and Historic Shrine Report	FHWA/FTA	1-Feb-02
	Federal Lands Alternative Transportation Systems Study	Cambridge Systematics, Inc	Jan-oo

# Appendix B: External Sources Bibliography (Continued)

	NAME	SOURCE	DATE
	Annual Tourism Report FY2001	MD Office of Tourism Dev.	2001
State/City Reports (Continued)	Status of the Port Land Use Development Advisory Council	MDOT	Dec-o2
<b>, Repc</b>	Transportation Plan Arches National Park	National Park Service	Jan-o3
City	Baltimore Year-End Report Fiscal Year 2001	Downtown Partnership of Baltimore	2003
<b>6/C</b>	City of Baltimore Annual Report 2002	Balt. Development Corporation	2002
tat	City of Baltimore Development Corporation Summer 2003 Report	Balt. Development Corporation	2003
S	Summary of Initiatives/Downtown Beautification Program	Downtown Partnership of Baltimore	
	For Now, fighting fire on water	The Baltimore Guide	13-Aug-03
	"Seaport Taxi owner hit with \$505,000 lawsuit	Baltimore Business Journal	23-Sep-03
	Downtown Area Shuttle Information/Articles	Baltimore Business Journal	8-01/3-03
Articles	Baltimore Region Transit Plan/Red Line Corridor Transit Study	Maryland Transit Adminstration	21-Aug-03
Arti	Baltimore Development Corporation "Streetscape Design Guidelines"	Hord Coplan Macht, Inc	2002
	"The [shuttle]bug may not stop here, yet"	The Baltimore Guide	I-May-02
	Maryland Scenic Byways	SHA Office of Env. Design	no date
	The Star Spangled Banner as a Poem	Aesthetic Realism Foundation	1986
	Baltimore Shuttle Brochure	Balitmore Shuttle	current
	Destination Maryland	MD Office of Tourism Dev.	2001
<u>s</u>	Maryland Bicycle Map	MDOT	no date
Peripheral Materials	Maryland Heritage Areas Map	Dept.of Housing&Comm. Dev.	no date
/ate	Gettysburg Invasion and Retreat Brochure	MDOT	no date
a N	Experience Historic Baltimore Brochure	Baltimore History Alliance	no date
her	Map of American Byways	USDOT	no date
erio I	By the Light of the Bay	MD Office of Tourism Dev.	2001
ے ا	Volunteer Application for National Parks across the Country.	National Park Service	1997
	US Constellation Museum Handout.	USS Constellation Museum	no date
	Maryland 2003 Calendar of Events.	MD Office of Tourism Dev.	2003

# **Appendix C: Transportation Elements**

A tabular presentation of the transportation elements.

**Transportation Elements: Surface Transit** 

# **Mode -- Surface Transit**

Element #1 - Summary Description

Construct bus drop-off and pick-up point within FOMC. A dedicated bus stop could be constructed, featuring a visitor waiting area (possibly with shelter), introductory/interpretive FOMC information, bus schedules, etc. The bus stop could be used by tour buses, school buses, partner transit buses, and the No. I transit bus. There are several different concepts -- drop-off point as an intermodal facility (linked with the ferry dock), linked with the E/A facility, or as a standalone operation. A bus waiting/staging area could be incorporated, depending on the scope of the design.

Stakeholders		
Primary	Affected	
FOMC. Some reconfiguration of the internal space would be necessary, visitor transport mode choices and internal use patterns could change, and the new facility would require new staffing/management procedures as well as additional maintenance.	Transit providers, whether tour bus operators, schools, partners who provide transit services (Kane's Water Taxi, the proposed GBHA/M. of I. transit services), or the MTA.	

Policy Matters		
Mobility/Access	Environment	Planning & Development
2	would need to be done in coordination	A new planning process would be required; development of alternatives and designs, environmental compliance, funding, and construction would take time, whether or not coupled with the E/A project.

Appendix C: Transportation Elements: Surface Transit

Mode Surface Transit		
Element #1 (continued)		
Technic	al Issues	
Infrastructure	Vehicles	
Design of new infrastructure; would need conceptual work, landscape analysis, architectural design, fabrication and construction, and would have to be coordinated with the E/A facility unless it was subsumed into that project. Question as to exactly what visitor amenities to incorporate & how large a facility is desired.	Facility would be designed to accommodate several different vehicle types. Incorporate a staging/idling area, or integrate with parking area?	
Operations	Environmental Impact	
Park staff would need to respond to new visitor flows, new/different patterns of visitor arrivals/departures, need to manage buses if staging or parking areas are incorporated. Staff may also have to field questions regarding buses, even though such questions should be directed to operators/transit providers.	NEPA requirements for compliance and public review. Responsiveness to park's CLR.	
Financia	l Matters	
Analysis, design, construction would need separate funding from NPS. Operations and maintenance included in FOMC's general budget.		

# **Mode -- Surface Transit**

### Element #2 - Summary Description

Schedule integration with water transport service. Transportation providers at major ferry embarkation points (Inner Harbor, Fells Point) would coordinate arrivals there with regular scheduled ferry departures and would also have telephone/radio contact with ferry operator(s) to address schedule disruptions and passenger pickups at "on call" landings.

Stakeholders		
Primary	Affected	
Ferry operator(s). Run(s) primary east-west>FOMC tourist	Tourism/visitation organizations; other attractions/cultural	
transit service. <u>Greater Baltimore</u>	institutions. Publicize the linked schedules and services.	
History Alliance. Coordinate proposed west end history and		
culture shuttle with FOMC ferry service.		
MTA. Seek to improve service to Inner Harbor (No. 1 bus and		
light rail) as well as to stops on north shore of Harbor, e.g., Fells		
Point.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Improved, more predictable access to FOMC for tourists and visitors and, to a lesser extent, for city residents.	Effective service reduces roadway congestion and pollution from cars.	No significant impact or benefit.

Mode Surface Transit		
Element #2 (continued)		
Technic	al Issues	
Infrastructure	Vehicles	
No significant impact or benefit.	No impact. Schedule integration would go forward with whatever vehicles and boats are operating.	
Operations	Environmental Impact	
Schedule integration with ferry service. Transportation providers at major ferry embarkation points (Inner Harbor, Fells Point) would coordinate arrivals there with regular scheduled ferry departures and would also have telephone/radio contact with ferry operator(s) to address schedule disruptions and passenger pickups at "on call" landings.	Negligible.	
Financia	l Matters	
Negligible impact.		

# **Mode -- Surface Transit**

### Element #3 - Summary Description

Transfers and fare/pass reciprocity with water transport service. MTA and other surface transport providers would offer tickets with Inner Harbor ferry service included, in the form of either single, round trip, or all day fares. This element would require MOUs or other instruments of agreement between the surface transport providers and the ferry service(s).

Stakeholders		
Primary	Affected	
MTA. Develop program, fare structure, and ticketing.	BACVA. Potential "transit hub" and ticket sales venue.	
Tourist transit operator, e.g., Balt. History Alliance. Same. Ferry operator. Same.		
refry operator.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Improved ease of access to FOMC for city residents and, to a lesser extent, for tourists and visitors.	No significant impact or benefit.	No significant impact or benefit.

Mode Surface Transit		
Element #3 (continued)		
Technica		
Infrastructure	Vehicles	
ne.	None.	
Operations	Environmental Impact	
led item for ticket sales by both MTA and ferry operator.	None.	
Financial	Matters	
	equiring some negotiation and coordination among the involved	
isportation providers.		
Financial	Matters	

# **Mode -- Surface Transit**

### Element #4 - Summary Description

FOMC operates/contracts its own shuttle from Inner Harbor. Bus shuttle exclusively for park visitors, operated from Inner Harbor (BACVA visitor center or other central pick-up location). FOMC could look to other parks to see what range of operations/management/concession arrangements are used throughout NPS.

Stakeholders		
Primary	Affected	
FOMC. Would oversee shuttle concession as major FOMC	Locust Point Civic Association. Could local residents use this	
program; significant change in visitation? BACVA	service? MTA. Would No. 1 bus	
and other cultural institutions may be interested in	service be affected? Ferry operators. If more visitors	
participating in the shuttle; visitor transport patterns could	come by bus, fewer by ferry? Less interest in using city-owned	
change.	dock at FOMC? Competition with existing Water Taxi jitney	
	service?	

Policy Matters		
Mobility/Access	Environment	Planning & Development
Greatly improve visitor access for those coming from Inner Harbor. Superior visitor experience if "park visit" begins aboard vehicle during approach to fort.		Would need to set up concession arrangement and secure operating funds for concessionaire. Change in way FOMC charges fees, in order to make shuttle self-sustaining proposition? (NPS ATP eligibility excludes funding of transit operations.)

Mode Surface Transit  Element #4 (continued)		
		Technical Issues
Infrastructure	Vehicles	
Negligible impact, but could combine with dedicated bus	What sort of bus to use on this service? Alternative fuel?	
acility within FOMC (see other element) in order to better	Appropriate accessibility.	
eccommodate the large increase in bus visitation that would be		
expected. Larger groups of visitors arriving simultaneously,		
ather than staggered by cars.		
Operations	Environmental Impact	
Provide interpretive services aboard vehicle (ranger staffing)?	Negligible.	
Administration of transit concession? Vehicle schedule and		
ogistics service points in Inner Harbor. Maintenance of		
rehicle(s); contingency plan for service failure or additional		
ervice.		
Financial Matters		
ATP funds cannot be used to subsidize transit operations; ideally		
ncentives to attract potential concessionaires? ATP funds can be	e used for infrastructure and/or vehicle investment FOMC	
could own vehicle & contract out operations.		

# **Mode -- Surface Transit**

### Element #5 - Summary Description

Collaboration on shuttle with interested institution. Both the Greater Baltimore History Alliance and the Museum of Industry are planning (or have at least proposed) to operate, with partners, their own transit shuttle services to/from the Inner Harbor. FOMC could participate, as a partner, in one or both of these operations. Transit service would then be provided to FOMC, the Inner Harbor, and participating institutions.

Stakeholders		
Primary	Affected	
FOMC, Greater Baltimore History Alliance, Museum of	Locust Point Civic Association. Could local residents use this	
Industry, other shuttle partners. All partners under this	service? MTA. Would No. 1 bus	
arrangement would have to work closely together and agree	on service be affected? Ferry operators. If more visitors	
logistics, financing, operational details (type of vehicle,	come by bus, fewer by ferry? Less interest in using city-owned	
schedule), contingency plans, etc. FOMC	dock at FOMC? Competition with existing Water Taxi jitney	
friends group could be additional partner in this endeavor.	service?	

Policy Matters		
Mobility/Access	Environment	Planning & Development
Greatly improve visitor access for those coming from Inner Harbor and/or other		Would need to set up partnership & outline FOMC's participation. Change in way
cultural attractions. Greater appeal to those who would like a "one-stop shopping" Baltimore experience but aren't interested in planning a detailed itinerary for themselves possible package deals.		FOMC charges fees, in order to provide revenue for financial participation in shuttle? (NPS ATP eligibility excludes direct funding of transit operations, but some "partnership" funding activities could potentially be eligible, as could vehicle purchase.)

Mode Surface Transit		
Element #5 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Negligible impact, but could combine with dedicated bus facility within FOMC (see other element) in order to better accommodate the large increase in bus visitation that would be expected. Larger groups of visitors arriving simultaneously, rather than staggered by cars.	What sort of bus to use on this service? Alternative fuel? Appropriate accessibility.	
Operations	Environmental Impact	
Administration of partnership park's precise participation, financial and otherwise? Vehicle schedule and logistics service points in Inner Harbor. Maintenance of vehicle(s); contingency plan for service failure or additional service.	Negligible.	
Financia	Matters	
ATP funds cannot be used to subsidize transit operations; ideally somehow. Vehicle purchase? Other financial participation? Char	y, should be self-sustaining, but FOMC would have to participate nge in FOMC's fee structure?	

# **Mode -- Surface Transit**

### Element #6 - Summary Description

MTA No. 1 bus dropoff inside FOMC. The bus would drop off passengers inside FOMC at the same point where other buses do, in front of the visitor center, on an "on demand" only basis. The route terminus turnaround outside the FOMC gate would be modified to allow access for the bus traveling west (from FOMC). In addition, an "on demand" stop could be provided for Locust Point residents, for example, at Fort Avenue & Cooksie Street.

Stakeholders		
Primary	Affected	
MTA. Owns equipment and operates service. Would be	Locust Point Civic Association. Local residents would get	
required to modify No. 1 bus operation and, possibly, the	transit alternative into FOMC with on demand stop.	
schedule. The Fort Avenue turnaround would require physical		
reconfiguration to accommodate buses returning from the		
FOMC drop point. <u>FOMC.</u> MOU		
with MTA would be required.		
·		

Policy Matters		
Environment	Planning & Development	
Minimal impact or benefit overall. Negligible incremental pollutant emissions in FOMC.	Minor route modification by the MTA.	
	Environment  Minimal impact or benefit overall.  Negligible incremental pollutant	

Mode Surface Transit	
Element #6 (continued)	
Technical Issues	
Infrastructure	Vehicles
No impact inside FOMC if bus uses same dropoff as provided for other buses. The MTA's bus turnaround at the route terminus outside FOMC would require some modification to accommodate the bus approaching it from the east, as well as from the west.	No change implied for MTA bus fleet.
Operations	Environmental Impact
No. 1 route would provide service into FOMC, adding perhaps 1/4 mile to the route. It appears that the extra distance and time	Negligible.
would be well within the available layover times, according to the current schedule.	
Financial Matters	
Minimal impact on MTA operational budget. Very small amounts of extra fuel would be consumed to cover the extra distance. Infrastructure cost associated with modifying existing bus turnaround outside FOMC, possibly to be borne at least in part by FOMC.	

### **Mode -- Water Transportation**

### Element #1 - Summary Description

Single service operating to FOMC, and generally in the Northwest Harbor. The City of Baltimore recompetes landing rights at the City-owned landings for one service only, effectively eliminating one of the two current operators from FOMC service. The likely result, in operational terms, is a single larger fleet offering more frequent service, particularly at high volume landings such as the Inner Harbor, Fells Point, and FOMC.

# Stakeholders Primary Affected of Baltimore The city would issue a new REP and go FOMC. Visitor arrivals at the city-ow

City of Baltimore. The city would issue a new RFP and go through a proposal evaluation, selection, and award process. It would have to take added responsibility for its landings, where a smaller set would be used more intensively than at present.

Water taxi operator. The winning operator would have to expand and possibly modernize its fleet, develop new schedules to meet the RFP specifications and needs of particular users, and revamp company management to deal with these changes.

FOMC. Visitor arrivals at the city-owned dock could double immediately and grow thereafter due both to overall visitation growth and induced demand for the new service. Greater Baltimore History Alliance. Opportunity for intermodal transportation link between west end historic sites (e.g., Babe Ruth Museum and Mt. Vernon district). Baltimore Maritime Museum. Potential partner for harbor historic interpretation.

Policy Matters		
Mobility/Access	Environment	Planning & Development
Improved service would: reduce	Potential reduction of overall energy	Impact should be zero to minimal, since
automobile traffic to FOMC, particularly	consumption and engine emissions; wake	existing city landings would be used. No
from downtown areas; provide better	and wash impacts, depending on	new shoreside development is anticipated.
ADA access, given proper	choice(s) of vessels; no impact on	
ramping/gangways/etc. and landside	sensitive areas.	
accommodations in FOMC; provide		
opportunities for better linkage to		
landside transit, especially those serving		
tourists.		

**Appendix C: Transportation Element: Water Transport** 

Mode Water Transportation		
Element #1 (continued)	Element #1 (continued)	
Technical Issues		
Infrastructure	Vehicles	
No new landings are anticipated, particularly not in FOMC. The vessels chosen, as well as possible ADA access improvements, could result in reconfiguration of the FOMC dock (described in other elements). A single operator would have to address the home berthing issue for a larger fleet.	The single operator would likely merge the existing fleets at the outset, and eventually have to rationalize the fleet to the desired schedule and operations. The choices depend on schedule, speed, headway, passenger capacity, access needs, and Coast Guard inspection regime (likely "rivers" service T-boats). Other ferry elements address combinations of schedule and vessel	
	type.	
Operations	Environmental Impact	
The operator of a single larger fleet would likely engage in some combination of regular scheduled services among busy landings, and water taxi service elsewhere. At first glance, the Inner Harbor, Fells' Point, and FOMC appear to be likely candidates for scheduled service. Boats on regular service would have a master + one deck hand, the taxis just the master. Speed < 6 knots, unless limit changed.	Negligible. No sensitive areas in Northwest Harbor. No new infrastructure to affect surrounding areas.	
Financial Matters		
Private owner/operator would incur all operating costs, including any concession the city might require for use of the landings. Public investment may be required for landings upgrades, depending on boats selected for service and access needs. FOMC expenditure could be required as part of cooperative construction and maintenance arrangement for the FOMC dock.		

# **Mode -- Water Transportation**

Element #4 - Summary Description

Improved ADA dock access at FOMC and other city landings. Current arrangements by the two operators are not ADAAG-compliant, in spite of the polite efforts of their crew and landing personnel. The city should address ADA access when it solicits bids for the new landings contract. In particular, the dock at FOMC will have to be made compliant through some combination of new/modified vessels and a gangway arrangement allowing the proper slopes at all tide heights. The access from the land to the dock is currently adequate.

Stakeholders		
Primary	Affected	
Baltimore City: Owns all affected landings. FOMC:	Partner transit operators: Will need to offer best access they	
Controls access to the FOMC dock and will likely have some	can. BACVA and other	
role in upgrading the dock. Water taxi	tourist agencies: Communicate FOMC accessibility	
operator: As public contractor using all public landings, will	information to the public.	
have to ensure best possible access onto the boats.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Both the city and FOMC, as public	NA.	<u>City</u> infrastructure managers will have to
entities, are bound by ADA to provide		assess ADA access at the landings and
access, either "reasonable		develop plans to address as needed. Water
accommodations" at existing facilities or		taxi operator(s) may, depending on
compliant accommodations at new or		particulars of city contract, have to
substantially renovated facilities. The		undertake onboard, shoreside, and
same applies to public transportation.		operational changes to provide needed
The city landings contract should		access. FOMC could consider making
specify access.		ADAAG-compliant access a condition of
		landing at the park

Mode Water Transportation			
Element #4 (continued)	•		
Technical Issues			
Infrastructure	Vehicles		
All landings are fixed structures, either docks on pilings or "bulkhead" (seawall), though there are historic-preservation concerns re: seawall. The infrastructure modifications will likely be non-existent or minimal, as access accommodations will be addressed through gangway/vessel designs and operational procedure.	Raised decks, as on pontoons, are the most sensible application. Vessel door/gate and some deck space onboard should meet ADAAG width/maneuvering requirements. Boarding area of vessel should be integrated with accessible gangway design(s).		
Operations	Environmental Impact		
The goal of ADA is to provide "independent" access. Crew or landing staff would not thus be engaged in assisting the passenger, but would be required to set up the gangway and ensure that it and the boat are properly secured. Two personnel per boat would be required, a captain + either a deck hand or a shoreside staffer. Abnormal tides must also be accounted for in procedure, in case they result in non-spec. gangway slope.	NA.		
Financia	l Matters		
Capital investments in vessel and shoreside accommodations. Provide personnel to ensure accessible embark/disembark connpartner/contribute to efforts to provide access at FOMC dock.			

# **Mode -- Water Transportation**

Element #5 - Summary Description

Express service from Inner Harbor to FOMC. Single operator would run dedicated boats from the Inner Harbor (e.g., BACVA visitor center stop) to FOMC, possibly with a stop at Fells Point. The number and speed of the boats would achieve a [30'] headway during peak hours. This scenario presumes boats similar to those currently in operation. Another element examines higher speed boats. Longer headways would serve during shoulder and off-peak seasons and times.

Stakeholders		
Primary	Affected	
Water taxi operator: New service and schedule. Decisions on	Baltimore City: Administration and maintenance of landings.	
fleet makeup, type and speed of boats, crew, etc.	BACVA & other visitation agencies: Promote and interact	
<b>FOMC</b> : Address needs of many more visitors arriving at FOMC	with new service. Other	
dock.	cultural institutions: Respond to/promote new service.	

Policy Matters		
Mobility/Access	Environment	Planning & Development
Combining two operations into one with	Potential reduction of of overall energy	NA.
better headways and direct service	consumption and engine emissions; wake	
should induce demand beyond simple	and wash impacts, depending on	
addition of the patronage of the two.	choice(s) of vessels; no impact on	
Automobile traffic and congestion in	sensitive areas.	
Locust Point and in FOMC should be		
reduced. It is possible that some tour		
buses could transfer passengers		
downtown and park at the stadiums'		
lots.		

Mode Water Transportation		
Element #5 (continued)		
Technic	al Issues	
Infrastructure	Vehicles	
Little impact relative to single operator service.	Selection crucial for operator: for a given headway (e.g., 30') find the right combination of number and speed of boats. Possibilities include monohulls and/or pontoon boats as found in the 2 existing services for 6 knot operations.	
Operations	Environmental Impact	
New service results in many changes for operator: equipment, crew, maintenance, ticketing, landing/embark/disembark operations.	Impact is minimal relative to other, or current, services.	
Financia	l Matters	
Impact for FOMC minimal; planning for different ferry passenge expenses affected: debt service, labor, fuel, insurance, admin, etc		

### **Mode -- Water Transportation**

### Element #6 - Summary Description

<u>Craft at higher operating speed</u>: An effective express service to FOMC from the Inner Harbor could be provided by higher speed (10-12 knots) boats. This service would enable faster transit times and shorter headways for a given number of boats in service. The boats could, for example, be purpose-designed, high efficiency low wake-wash catamarans. Such a service would require an exception to the Northwest Harbor 6 kt. speed limit, which could be achieved through the provision of a "fairway" - a designated corridor for the stated purpose of the ferry operation.

Stakeholders		
Primary	Affected	
Water taxi operator: New service, schedule, and fleet.  Decisions on type and speed of boats, crew, and operations development (e.g., safety manual). FOMC: Address needs of many more visitors arriving at FOMC dock.	City of Baltimore, Harbormaster: Work with the operator to implement fairway or other exception for higher speed operation. Should be provided an operations and safety manual by the operator for review.  Other cultural institutions: Respond to, promote new service.	

Policy Matters		
Mobility/Access	Environment	Planning & Development
Single express operation with better	Potential reduction of of overall energy	NA.
headways and transit time should induce	consumption and engine emissions; wake	
demand beyond simple addition of the	and wash impacts at marinas will require	
patronage of the existing two services.	analysis to minimal impact; no impact on	
Reduction of auto traffic and congestion	sensitive ecological areas.	
in Locust Point/FOMC. Some tour	_	
buses could transfer passengers		
downtown and park at the stadiums'		
lots.		

Mode Water Transportation		
Element #6 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Little impact relative to single operator service or express service with slower boats (see other elements).	There are several examples of operations employing small-sized catamarans, with small power plants, at similar operating speeds. Current design and modeling techniques allow for routine prediction of wake and wash and hull form optimization for that purpose.	
Operations	Environmental Impact	
New service results in many changes for operator: equipment, crew, maintenance, ticketing, landing/embark/disembark operations. The high speed (10-12 knots) aspect would probably require development of an operations manual addressing the exception to the current 6 mph limit and "rules of engagement" for vessel traffic (particularly recreational craft) and circumstances dictating speed reductions.	Primary issue would be wake/wash effects at proximate marinas and recreational craft anchorages. Secondary issue would be air emissions.	
Financial Matters  All operator expenses affected: debt service, labor, fuel, insurance, admin, etc. Impact for FOMC and other stakeholders		
minimal.		

# **Mode -- Water Transportation**

Element #7 - Summary Description

Higher frequency Outer Loop service. One operator currently runs "inner" and "outer" loop services, requiring the FOMC visitor traveling from the Inner Harbor to transfer between loops. This is currently ineffective in terms of a reasonably prompt and enjoyable trip. One solution would be to increase frequency of the outer loop service and better integrate the schedules for short interval transfers.

Stakeholders		
Primary	Affected	
Water taxi operator: Modified service and schedule. Probable	Other cultural institutions: Promote and interact with new	
need to change outer loop service from water taxi to a regularly	service. An easier sell without the present need for connecting	
scheduled route.	rides and long transit time.	
Policy Matters		

Policy Matters		
Mobility/Access	Environment	Planning & Development
No benefit likely in this service scenario.	No benefit likely in this service scenario.	No issues in this service scenario.

Mode Water Transportation		
Element #7 (continued)		
Technical Issues		
Infrastructure	Vehicles	
No changes or impacts likely in this service scenario.	No changes or impacts likely in this service scenario.	
Operations	Environmental Impact	
The operator would need to modify the service type and schedule, relative to the two-loop service currently offered by one operator. The outer loop would require more boats and possibyl a conversion from water taxi service to a regularly scheduled service.	Little change or impact likely in this service scenario.	
Financia	Matters	
All operator expenses affected: debt service, labor, fuel, insuranc	ce, admin, etc. No impact for FOMC and other stakeholders.	

### Appendix C: Transportation Elements: Congestion

## **Mode -- Congestion Management**

Element #1 - Summary Description

Rerouting of Steinweg trucks. Semi-tractor trailers currently run between Steinweg properties north and south of Fort Street via Wallace Street and crossing Fort Avenue directly in front of the FOMC main gate. This creates needless congestion and a potential safety issue with crossing traffic. The alternative is to route the traffic over the MPA North Locust Point Marine Terminal (NLPMT) onto road which crosses beneath the CSX-owned Fort Avenue bridge, about 1/5 mile west of the gate.

Stakeholders		
Primary	Affected	
Steinweg. Negotiation with MPA and modification of trucking	FOMC. May need to play "honest broker" role between	
operation to conform with new route. MPA.	Steinweg and MPA. Clear beneficiary of this change.	
Modification of security and access at east end of LPNMT.	Baltimore DOT. Manages road maintenance and traffic.	
Allowance for added trucking traffic on property.	Would see positive change for Fort Avenue.	

Policy Matters		
Mobility/Access	Environment	Planning & Development
Congestion reduction and safety improvement at FOMC front gate.	Negligible impact.	May affect MPA planning for NLPMT. Truck route from Steinweg would take land. Also, physical security arrangements are important to MPA and planning would necessary for their modification. Overriding concern for MPA is future projected trade growth (doubling in 20 years) and the need to retain as much port land as possible.

### **Appendix C: Transportation Elements: Congestion**

Mode Congestion Management		
Element #1 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Security and roadway modifications. New security gate likely necessary between Steinweg and MPA properties. Minor roadway mods: likely only markings and signage over existing pavement.	No change.	
Operations	Environmental Impact	
Steinweg modify trucking route. This change should benefit Steinweg because the new route should be easier for the trucks to negotiate. Steinweg and MPA would have come to an agreement on the manning and operation of the new entrypoint into MPA property and the security detail.		
Financia	l Matters	
None for FOMC. Steinweg and MPA would have to arrive at an repeating operational expenses, that is, the security labor and ma		

# **Mode -- Congestion Management**

Element #2 - Summary Description

Improved bus parking in FOMC. Expansion of bus parking spaces from 6 to [15] would accommodate more tour and group buses during peak season; and/or reconfiguration to allow "drive-through" parking.

Stakeholders		
Affected		
Locust Point Civic Association. Benefit from reduced street		
congestion in neighborhood due to overflow bus parking.		

Policy Matters		
Environment	Planning & Development	
e	FOMC may need to reallocate space within the park for added bus parking.	
	Environment Benefit to Locust Point neighborhood: reduced parking congestion and bus	

Mode Congestion Management		
Element #2 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Modify or expand bus parking within the park. Each added space is [50'] long X [9'] wide.	This element does not directly affect the makeup of the vehicle fleet.	
Operations	Environmental Impact	
Parking by bus operators will improve. FOMC would need to consider including the parking spaces in the bus reservation system, as well as providing some amenities for the bus drivers, i.e., improved food service and a sitting area.	Added parking would possibly result in paving presently open ground. Benefits otherwise in terms of reduced congestion and air emissions in the Locust Point neughborhood.	
Financia	l Matters	
Capital expense for parking modifications would be borne by the Park Service.		

# **Mode -- Congestion Management**

Element #3 - Summary Description

Bus overflow parking off-site, either in MPA lot or according to BACVA bus parking plan. FOMC should provide BACVA bus parking plan to all bus drivers. For MPA lot, FOMC and the MPA negotiate an agreement to allow spring seasonal and other occurrences of bus overflow from on-site parking, into the existing MPA lot outside the FOMC front gate. Some improvement of the MPA lot would be required, i.e., resurfacing, striping, and would probably have to be included in the agreement. NOTE: This element could as well apply to the case of ALL bus parking in the MPA lot.

Stakeholders		
Primary	Affected	
MPA. New use of existing and currently underused space.	Locust Point Civic Association. Benefit from reduced street	
Provision of new angled bus parking spaces. Refurbishment of	congestion in neighborhood due to overflow bus parking.	
weed-grown lot. FOMC. Added adjacent	Steinweg & USNR Center: Extra traffic on Wallace Street to	
bus parking, and ability to plan/reserve parking spaces for more	contend with.	
buses. <u>Group and tour bus operators</u> . Benefit		
from improved opportunity to park on-site.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
No benefit. This element improves parking for buses following discharge of passengers.	Benefit to Locust Point neighborhood: reduced parking congestion and bus emissions. The scenario where all buses park in the MPA lot would result in the same benefit for FOMC.	MPA is wrestling with serious land use issues. They face pressure to redevelop from industrial to residential/office use, while anticipating a doubling of U.S. overseas trade in the next twenty years. Any agreement to use the MPA lot would need the flexibility to allow for increased future use by NLPMT workers.

**Appendix C: Transportation Elements: Congestion** 

Mode Congestion Management			
Element #3 (continued)			
Technic	Technical Issues		
Infrastructure	Vehicles		
Provide spaces for parking [20] buses within the MPA lot. Each added space is [50'] long X [9'] wide. The lot (approximately 500' X 250' in size) is currently in poor condition and all or part of it would require resurfacing and striping. The entrance will probably require relocation/reconfiguration to accommodate buses from FOMC, perhaps onto Fort Avenue.	This element does not directly affect the makeup of the vehicle fleet.		
Operations	Environmental Impact		
Parking by bus operators will improve. FOMC would need to consider including the overflow parking spaces in the bus reservation system, as well as providing some amenities for the bus drivers, i.e., improved food service and a sitting area.	The added parking would result in repaving part or all of an existing lot. Benefits otherwise in terms of reduced congestion and air emissions in the Locust Point neighborhood and FOMC. "Viewshed" of Fort Avenue impacted by vehicles [?] Possibility of screening MPA lot.		
Financia	Matters		
It is possible that any agreement between MPA and FOMC woulthe capital expense of upgrading the MPA lot, and the annual ex	ld require some form of financial co-payment by FOMC, both for penses of maintaining it.		

# **Mode -- Congestion Management**

Element #4 - Summary Description

Reconfiguration of main gate traffic controls. The main gate is an historic structure that can accommodate only one lane of traffic at a time. It cannot be widened, and one solution is a non-structural approach to the traffic flow problem. Improved signage and roadway markings would be provided to ensure safe one-way at a time flow through the gate. These improvements should also address the cross-traffic emerging from Wallace Street and Nicholson Street, particularly the Steinweg trucks.

Stakeholders		
Primary	Affected	
FOMC. Provision of signage and roadway markings inside the	Steinweg. Cross traffic on Wallace Street will be directed by	
park boundary. Benefit from improved and safer flow of traffic.	new signage and markings. MPA. Traffic	
Baltimore DOT. Provision of signage and roadway markings	into east end of NLPMT affected by new signage and markings.	
outside the park boundary.	USNR Center. Traffic into east end of NLPMT affected by new	
	signage and markings.	

Policy Matters		
Mobility/Access	Environment	Planning & Development
Mobility and access, in the sense of enabling more people to visit the park, are not affected.		Both FOMC and the Baltimore DOT would need to agree on the traffic management approach to be taken, and develop a detailed set of plans to implement it.

Mode Congestion Management		
Element #4 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Minor improvements, i.e., signage and markings.	This is presumed to have no effect on the vehicles arriving at FOMC.	
Operations	Environmental Impact	
Modified traffic flow may require park staff at the gate and extra effort to educate people who use the park on a regular basis, that is, local residents and tour company bus drivers.	No significant impact.	
Financia	l Matters	
Both the Baltimore DOT and FOMC would be responsible for in improvements is likely to be minor.	mprovements on their own property. The cost of these	

# **Mode -- Congestion Management**

Element #5 - Summary Description

Construction of separate exit road along north boundary. Another solution to the front gate congestion/traffic flow problem is to construct a separate vehicular exit from FOMC. This would involve connecting the roads and parking lot inside the park either to Nimitz Street, which runs east-west along the north FOMC boundary, or to the existing gate in the west FOMC now used for maintenance access. The point of connection could be on the southern end of the USNR parking lot (closest to the existing FOMC lot) or further west on Nimitz Road proper. Outgoing traffic would move west on Nimitz, turn left to go south on Wallace Street, then right to go west on Fort Avenue. This case would change infrastructure modifications associated with other Congestion elements (MTA bus dropoff in park --> affects existing MTA turnaround on Fort Avenue) and (bus overflow in MPA lot --> affects MPA lot entrance/exit mods.).

Stakeholders		
Primary	Affected	
FOMC. Reconfigure road to one of two egress points.	Steinweg. Truck traffic on Wallace Street would be affected by	
Baltimore DOT. Agree to allow access point onto public road.	traffic entering from Nimitz or maintenancxe gate.	
NOTE: Ownership of road is uncertain. <u>USNR Center.</u>	MPA. Traffic into east end of NLPMT would be affected by	
Their agreement required for entrance into their parking lot or,	Nimitz traffic or maintenance gate.	
if they own it, onto Nimitz Street. Significant security concerns.		
if they own it, onto Nimitz Street. Significant security concerns.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
-		This would require negotiation, planning, and design work among FOMC and the City of Baltimore and/or the USNR Center.

**Appendix C: Transportation Elements: Congestion** 

Mode Congestion Management		
Element #5 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Roadway modifications within FOMC. Possibly also security perimeter modifications at USNR Center. New connecting road will require grading and paving. Off-site parking (entrance configurations) and MTA bus turnaround arrangements would be affected by this re-routing of traffic. The configuration/location of the angle parking on Wallace Street should also be examined.  Operations  Would improve flow to one-way at main gate, and probably free up park staff who are sometimes required to direct two-way traffic there. Traffic flow for all elements considered would be affected, whether exiting parking within FOMC, or proceeding to off-site parking areas. Would also reduce existing on-site overflow car parking.	Environmental Impact	
	Matters	
Capital expense for FOMC road modifications would be borne be agreements with the City and/or USNR Center for impacts on the	by the Park Service. FOMC might also have to negotiate financial e Nimitz Road.	

# **Mode -- Congestion Management**

Element #6 - Summary Description

Reduce on-site car parking and enhance off-site overflow arrangements. This approach opens up more of the park's land for restoration and visitors' use. Visitor car parking would be restricted to [50?] spaces for disabled persons and the average load of vehicles during high use periods. The parking lot would be redesigned for the reduced car capacity, possibly in conjunction with adding more bus parking inside the park ("Congestion" element #2). There would also be provision for new overflow car parking outside the park, through an agreement with a neighbor; the most likely candidate is the MPA, owner of the large and greatly underused lot north of Fort Avenue. The overflow parking would also necessitate provisions for getting visitors safely into the park, whether by a marked footpath (with interpretative opportunities) or a shuttle vehicle.

Stakeholders			
Primary			Affected
FOMC. Reconfigure, and possibly relocate, on-site parking lot to provide new reduced car capacity.  MPA or USNR Center. Agree to allow co-use of parking areas for overflow car parking. The USNR would have significant security concerns with such an arrangement.		Steinweg. Truck traffic on Wallace Street would be affected by additional traffic on Wallace Street using off-site parking.  MPA. Traffic into east end of NLPMT would be affected by additional car traffic.	
	Policy	Matters	
Mobility/Access	Environ	ment	Planning & Development
Would preserve on-site parking for disabled people and capacity for high average parking demand. Off-site parking for overflow may discourage some visitors.	Would "green" some land currently paved for on-site parking. Off-site overflow candidates are paved already. Negligible impacts/benefits in terms of traffic, emissions, etc.		This would require negotiation, planning, and design work among FOMC and the offsite partner, either MPA or the USNR Center.

**Appendix C: Transportation Elements: Congestion** 

Issues  Vehicles  chicles visiting FOMC will not change as a result of this
Vehicles
ehicles visiting FOMC will not change as a result of this
ement.
Environmental Impact
o impact. Benefit of extra historic/natural area added and less apervious surface where pavement is removed.

Capital expense for FOMC parking lot modifications would be borne by the Park Service. FOMC might also have to negotiate a financial agreement with the off-site parking partner (MPA or USNR Center) for off-site parking capital improvements and recurring O&M costs.

# **Mode -- Pedestrian and Bicycle Access**

Element #1 - Summary Description

Marked bicycle route from Inner Harbor through Locust Pt to FOMC. Provide a safe, marked connection for cyclists between the Inner Harbor attractions and FOMC. On an example, the origin would be proximate to the new BACVA visitor center, proceed south, then east along the Promenade through Rash Field, join the Key Highway at the Covington Street intersection, and follow the Key Highway south to Lawrence Street (passing the American Visual Art Museum and the Baltimore Museum of Industry), south on Lawrnce Street, and east on Fort Avenue to Fort McHenry. This would likely be bicycle lanes rather than bicycle paths.

Stakeholders		
Primary	Affected	
FOMC. East anchor of the path and primary destination.	MTA. Partner with a bus and ride program?	
Baltimore DOT. Responsible for City roads; would have to	Baltimore Planning Dept. Partner with and link to prop	osed
approve designation, design, and markings.	bike paths. Vis. Art & Inc	dustry
BACVA. Origin of path and west anchor. Opportunity for bike	Museums. Destinations along or nearby the route.	
rental operation at Inner Harbor.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Bicycle lanes would likely not be	Would result in reduction of car trips from downtown and Inner Harbor, reduced traffic, noise, and emissions for the City as a whole and FOMC.	FOMC role as supporting organization. Negotiation, planning, design, and implementation jointly carried out by City Transportation and Planning Departments.

Appendix C: Transportation Elements: Pedestrian/Bikes

Mode Pedestrian and Bicycle Access	
Element #1 (continued)	
Technical Issues	
Infrastructure	Vehicles
Bike lanes or paths should meet AASHTO standards, in the case of lanes, 4' paths on both sides of a two-way road with approved striping. The City will have to approve designs for each street, including the lanes themselves, striping, and signage. Safe transit through intersections and integration with street parking must also be addressed.	Possibly, fewer automobiles and more bicycles would enter FOMC.
Operations	Environmental Impact
Some impact at FOMC due to arrival of larger numbers of bicycles. Traffic operations in affected City streets would change.	No impact. Benefit to City and Park from reduced automobile traffic, noise, and emissions.
Financia	l Matters
No impact for FOMC. Capital cost of designing and installing for repeating costs for upkeep of the lanes, striping, signage, etc.	or the City, potentially shared by other partners, as well as the

# **Mode -- Pedestrian and Bicycle Access**

Element #2 - Summary Description

Connection of FOMC trail to other planned and existing bicycle/pedestrian trails. The Baltimore Planning Department has identified several bicycle/pedestrian trails in the planning stage. These include the Star-Spangled Trail, the All-American Road, Civil War Trail, Nat'l Historic Seaport Trail, Gwynns Falls Trail, Johns Falls Trail, the Spine of the East Coast Greenway, and a Federal Hill to FOMC trail.

Stakeholders		
Primary	Affected	
Baltimore DOT. Responsible for City roads; would have to	FOMC. Supporting and facilitating role.	
approve designation, design, and markings. <u>Baltimore</u>		
Planning Dept. Coordinate bike lane/path layouts and plan		
linkages.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Bicycle trail network improves	Would result in reduction of car trips	FOMC role as supporting organization.
transportation in Baltimore, in a general	from downtown and Inner Harbor,	Negotiation, planning, design, and
sense, and can draw wider group of	reduced traffic, noise, and emissions for	implementation jointly carried out by City
people into FOMC on bicycles.	the City as a whole and FOMC.	Transportation and Planning Departments.

Appendix C: Transportation Elements: Pedestrian/Bikes

Mode Pedestrian and Bicycle Access		
Element #2 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Bike lanes/paths should meet AASHTO standards, for lanes, 4' paths on both sides of a two-way road with approved striping. The City will have to approve designs for each street, including the lanes themselves, striping, and signage. Safe transit through intersections and integration with existing street parking must also be addressed.	Possibly fewer automobiles and more bicycles on City Roads in general, and entering FOMC in particular.	
Operations	Environmental Impact	
No impact at FOMC. Traffic operations in affected City streets would change.	No impact. Benefit to City and Park from reduced automobile traffic, noise, and emissions.	
Financia	l Matters	
No impact for FOMC. Capital cost of designing and installing for the City, potentially shared by other partners, as well as the repeating costs for upkeep of the lanes, striping, signage, etc.		

# **Mode -- Pedestrian and Bicycle Access**

Element #3 - Summary Description

Marked bicycle lanes inside FOMC from gate to new Education & Administration Center. FOMC would mark bicycle/pedestrian lanes with or without a marked lanes approaching the park from Fort Avenue. The markings would commence at the main gate and bring the riders to the new Education and Administrative Center. The existing road (Constellation Plaza) can accommodate two-way bike lanes. If a separate exit road is constructed, then the exit bike/ped. lane would be part of that road and Constellation Plaza would be suitable as is for one-way automobile and bicycle use. Consider eliminating biking along seawall trail for safety reasons and to maintain the historic shrine atmosphere.

Stakeholders			
Primary		Affected	
FOMC. All of the new lanes would be within FOMC boundaries.		None.	
	Policy I	Matters	
Mobility/Access	Environ	ment	Planning & Development
Safe entrance of bicyclists and pedestrians to the park. The markings and signage would direct users to a terminus and prohibit bicycle use in other parts of the park.	Would encourage redunoise, and emissions w		FOMC would plan, design, and implement new entrance and exit paths.

Mode Pedestrian and Bicycle Access	
Element #3 (continued)	
Technical Issues	
Infrastructure	Vehicles
Constellation Plaza can support two-way lanes. Construction of a separate exit road would also require planning and design for a one-way bicycle lane.	No issues.
Operations	Environmental Impact
Park staff would have to ensure that bicyclists use the lanes appropriately and refrain from using other parts of the park on their bikes.	Some loss of natural/historic ground if lane on new road is chosen.
Financia	l Matters
Capital expense of design and construction. Annual maintenance	ce of striping and signage.

M	lode Pedestriar	and Ricycle A	CCASS
Mode Pedestrian and Bicycle Access			
Element #4 - Summary Description  Bicycle accommodations at new Education & Administration Center. FOMC would provide bicycle racks and possibly a			
shelter.	acion & Administracion	<u>ir Center</u> . To viie w	ould provide oreyele facks and possibly a
	Stakel	holders	
Primary			Affected
FOMC. Reponsible for construction and bicycle accommodations.		None.	
	Policy	Matters	
Mobility/Access	Environ	ment	Planning & Development
Will help encourage bicyclists to visit FOMC.	No benefit or impact.		Minor effort for FOMC.

Mode Pedestrian and Bicycle Access		
Element #4 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Design and construction of racks, capacity = [20] bicycles.	None.	
Operations	Environmental Impact	
Littrle or no impact.	None.	
	l Matters	
Minor capital expense.		
Mode Pedestrian and Bicycle Access		
Element #5 - Summary Description		
Bicycle stowages onboard passenger craft.		

# Element #1 - Summary Description

Improved reservation system for bus/tour groups. The current reservation system used by FOMC to accommodate bus/tour groups can be upgraded in two ways -- improved management procedures, and improved software. Either or both of these options can be pursued. The idea is both to manage more effectively the inflow of bus/tour groups, and to establish the means by which more consistent information about such groups can be collected, recorded, and referred to later as a management aid. The system would also be used to manage parking of the buses for future on-site and off-site improvements in that area.

The system would also be used to manage parking of the buses for future on-site and on-site improvements in that area.			
Stakeholders			
Primary		Affected	
FOMC. Reservation-system improvements would be handled internally, for the most part. FOMC would have to decide exactly what staff resources it is willing to commit, what data collection elements it wants, how it wishes to manage parking, and how it wants information to flow (e-mail, voice mail, etc.).		Tour-bus, school-bus, and other transit providers, including MTA and water transport. FOMC may be more comfortable pursuing group-management strategies with these stakeholders once its reservations system is strengthened. Tour groups arriving by boat and more sophisticated multi-stage bus groups could be scheduled. BACVA. could provide statistics so that FOMC can compare its group traffic with Baltimore's, coordinate on off-site bus overflow parking (see related congestion element).	
	Policy	Matters	
Mobility/Access	Environ	ment	Planning & Development
Better reservation systems could lead to less congestion at FOMC.	Minor impact; fewer b congestion; less need f parking.	•	Development of new software/management procedures and new parking management procedures.

Appendix C: Transportation Elements: Reservations and Parking Management

Mode Reservations and Parking Management		
Element #1 (continued)		
Technic	al Issues	
Infrastructure	Vehicles	
None; less pressure on existing infrastructure by reducing bus congestion.	None; less pressure on existing infrastructure by reducing bus congestion.	
Operations	Environmental Impact	
New workflows induced by new reservations system; FOMC would need time to become acclimated. However, consequent reduction in staff resources required to deal with bus congestion/overflow parking. Better ability to predict and manage group attendance.	Negligible impact; fewer buses idling; less bus congestion; less need for bus overflow parking.	
Financia	l Matters	
Cost of developing new reservation system. Staff cost of operation is complete.	ons should be similar to current system once acclimation period	

# **Mode -- Reservations and Parking Management**

Element #2 - Summary Description

Require reservations for bus/tour groups. A more aggressive method of curbing bus congestion (may not be necessary at FOMC, but is a theoretical option). Buses that have not made reservations ahead of time might be limited in what activities they could participate in. Would require greater staff presence at gate/in parking area.

Stakeholders		
Primary	Affected	
FOMC. Additional staff resources. Commitment to a more	All tour and school bus groups. Reservations would be almost	
aggressive management practice. However, benefits are reduced	mandatory (not mandatory when FOMC is not crowded and	
congestion and more predictable, manageable flow of visitors.	buses are permitted entrance). Change in operational paradigm.	
	Locust Point community would have to deal with buses turned	
	away from FOMC. <u>Congressional</u>	
	delegation. Address comments from groups whose activities	
	were limited by the new procedure.	

Policy Matters		
Mobility/Access	Environment	Planning & Development
	bus congestion; less need for bus overflow parking.	Commitment to this practice would require significant thought and planning. In practice, notification and education of schools, bus companies, etc. would be required. The park would also need to consult with the affected Congressional delegation.

Appendix C: Transportation Elements: Reservations and Parking Management

Mode Reservations and Parking Management			
Element #2 (continued)			
Technic	Technical Issues		
Infrastructure	Vehicles		
None; less pressure on existing infrastructure by reducing bus congestion. Buses could conceivably disembark their passengers outside the park gate (use/modify MTA bus turnaround, with MTA's cooperation?). The main park road would be affected by more pedestrian traffic.	None; less pressure on existing infrastructure by reducing bus congestion. However, buses turned away would have to find someplace else to go, especially if their passengers still disembarked.		
Operations	Environmental Impact		
New workflows induced by new reservations system; FOMC would need time to become acclimated. However, consequent reduction in staff resources required to deal with bus congestion/overflow parking. Better ability to predict and manage group attendance. Unannounced buses would still require staff assistance.	Negligible impact; fewer buses idling; less bus congestion; less need for bus overflow parking.		
Financia	Matters		
Little financial cost except additional staffing required; greater staff presence either at gate or in parking area to deny parking to non-reserved buses when congestion conditions warrant.			

# **Mode -- Reservations and Parking Management**

Element #3 - Summary Description

Allow water transport origination trips from FOMC. Presently, FOMC does not allow originating trips, including visitors who park their cars. This is because FOMC does not want the responsibility of visitors stranded without their cars after the park closes. However, FOMC could allow visitors to park, and water trips to originate there, including customers who arrive at the park on foot or by bus; several stakeholders expressed interest in this possibility. FOMC could require registration of such cars; waiver signed by driver recognizing that car could be locked in overnight if not retrieved in time.

holders		
Stakeholders		
Affected		
Cultural institutions/BACVA could benefit from greater		
access to water transport by FOMC visitors. To a certain extent,		
other institutions would benefit more from this arrangement		
than FOMC itself. Visitors would also benefit by parking for		
free at FOMC rather than at an expensive downtown garage.		
The obvious risk is that commuters would take advantage of the		
opportunity to use the FOMC lot on a daily basis.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Improved mobility for visitors seeking to	Additional vehicle traffic in FOMC would	Careful thinking & coordination with
explore other Baltimore attractions	result in locally greater engine emissions.	stakeholder partners would be necessary if
using FOMC as a base. Access could be	The overall effect might be a reduction	this element is to be considered. Possibly
reduced to FOMC itself if parking	since it would eliminate automobile trips	combine with off-site parking to facilitate
spaces are taken up not by park visitors	into the City.	water services use without the
but by people who are simply parking		corresponding worry of car being locked at
for free in order to ride the water		FOMC. The commuter use aspect must be
services.		carefully considered.

Mode Reservations and Parking Management			
Element #3 (continued)			
Technic	Technical Issues		
Infrastructure	Vehicles		
Probably would be greater demand for parking at FOMC; more congestion and pressure on parking area.	More cars would probably come to FOMC.		
Operations	Environmental Impact		
Park staff would need to keep track of more car and/or bus activity; processing of waivers if that part of this element is implemented. Possible visitor dissatisfaction if cars locked in overnight. It could require a change in fee structure a new parking fee.	Additional vehicle traffic in FOMC would result in locally greater engine emissions. The overall effect might be a reduction since it would eliminate automobile trips into the City.		
Financia	Matters		
Additional staff cost of implementing this element is unknown. I still lock as usual at closing time.	No greater security requirements anticipated, as FOMC would		

# **Mode -- Traveler Information**

# Element #1 - Summary Description

Improved FOMC signage/wayfinding in/around Baltimore. Work with city, Maryland highway officials, Downtown Partnership, etc. to post additional and improved directional/wayfinding signs.

Stakeholders		
Primary	Affected	
MDOT. Highway branch; to post signs on I-95 and other state-	Depending on scope of signs whether just FOMC signage is	
maintained roads. Baltimore	improved or signage is improved for all cultural institutions.	
City. Whether Planning Department, DOT, or DPW,		
responsible for administration of city signs and city wayfinding		
program. Downtown Partnership.		
Supervising test of downtown pedestrian-orientation sign		
system.		

Policy Matters		
Mobility/Access	Environment	Planning & Development
Would improve ability of out-of-town or other unfamiliar visitors to find FOMC.		Baltimore City and its signage partners have a great investment in the city wayfinding sign system any change would probably require significant time and effort in planning and development.

Mode Traveler Information		
Element #1 (continued)		
Technical Issues		
Infrastructure	Vehicles	
Installation of new signs subject to MUTCD requirements, Baltimore DOT/DPW/Planning Dept. requirements.	No impact.	
Operations	Environmental Impact	
Maintenance of signs would not be a FOMC responsibility; negligible increase for responsible city/state agencies.	No impact.	
Financia	l Matters	
Installation of new signs under current city system requires only fabrication and installation costs; development of new sign system is a longer-term project. Maintenance costs would be impossible to distinguish from other state or city roadside signs.		

# **Mode -- Traveler Information**

# Element #2 - Summary Description

Increased park outreach and communications. This can take several forms: (1) Increase deployment of existing FOMC literature to hotels, highway stops, etc. (2) Enhance FOMC web site. (3) Increase park communications -- e.g., more frequent newsletter. (4) Work toward additional media coverage. (5) Develop new outreach/communications literature. All methods are designed to increase public awareness of FOMC, to increase the quantity, access, and quality (where appropriate) of information coming out of and produced by FOMC.

Stakeholders		
Primary	Affected	
FOMC. Would be responsible for producing new information (as needed) and coordinating the flow of both existing and new documents.	Other stakeholders as mentioned in FOMC's literature.	
Policy Matters		

Policy Matters						
Mobility/Access	Environment	Planning & Development				
Improved awareness of transportation options as appears in FOMC outreach/communications.		Possible planning/development of new literature and/or distribution strategies.				

Mode Traveler Information					
Element #2 (continued)					
Technic	al Issues				
Infrastructure	Vehicles				
No impact.					
Operations	Environmental Impact				
Coordinated outreach/communications could influence transportation mode choice of visitors e.g., fewer cars, more ferry passengers.					
Financia	Matters				
Cost associated with developing, producing, distributing new/additional literature and/or web site.					

# **Mode -- Traveler Information**

#### Element #3 - Summary Description

*Increased partner outreach and communications.* FOMC would work with its partners to increase outreach/communications: increased mention of FOMC in partner literature.

Stakeh		
Primary		
BACVA, Maryland Heritage Tourism, ferry providers, MTA,	Park frie	
other cultural institutions. All stakeholders who currently	audience	
engage in visitor outreach/communications could be targeted to	not with	
shine a brighter spotlight on FOMC in their outreach	informat	
documents/web sites.	events.	

Park friends group, Locust Point Civic Association. Two target audiences of additional outreach/communications material -- not with respect to transportation information, or general park information, but would be interested in up-to-date news, special events.

Affected

Policy Matters						
Mobility/Access	Environmen	t Planning & Development				
Improved awareness of transportation options as appears in FOMC outreach/communications.	No impact.	Procedural coordination with stakeholders to ensure they will always be disseminating correct, up-to-date information.				

Mode Traveler Information						
Element #3 (continued)						
Technic	al Issues					
Infrastructure	Vehicles					
No impact.	No impact.					
Operations	Environmental Impact					
New information could influence visitor mode choice. Also, FOMC would have to ensure that as stakeholders produce new information/outreach materials, FOMC-related material is current and up to date.	No impact.					
Financia	Matters					
Negligible impact. Cost of staff time in working with stakeholders to provide information.						

# **Mode -- Traveler Information**

#### Element #4 - Summary Description

Provision of real-time traveler information. Using one of several methods to provide real-time information to FOMC visitors and potential visitors: (1) Variable message signs. One or more signs placed at strategic locations to advise travelers. (2) Radio broadcast. AM radio system in use by some parks. (3) Participation in traffic-management system (phone/web site) operated by city DOT/regional consortium. (4) Call-in phone number -- daily updated recording. (5) web-based system; update web site daily with traveler info. Information that could be provided: congestion conditions (cars, buses, groups), special events, weather forecast, ranger activity schedule, facility closures, information about alternative transportation options, current recommendations on mode.

Stakeholders				
Primary	Affected			
For variable message signs, Baltimore DOT/DPW & Md. DOT,	Other cultural institutions who may wish to collaborate on			
regarding placement on city/state-administered streets if that is	providing traveler information. Locust			
an option. Traffic-management consortium not now present in	Point Civic Association, which may have concerns regarding			
Baltimore; Boston (et al.) model run/administered by	variable message sign. FOMC, which is			
SmarTraveler city DOT, MDOT would be major partners.	sensitive regarding the kinds of messages (e.g., "parking lot full")			
	provided by an automated real-time system.			
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Policy Matters						
Mobility/Access	Environment	Planning & Development				
System would reduce traveler confusion; enable better, more efficient trip planning.	Placement of VMS, possible radio antennas.	Effort needed to identify which traveler- information systems desired; system development, coordination with partners depending on method chosen.				

Mode Traveler Information					
Element #4 (continued)					
Technic	al Issues				
Infrastructure	Vehicles				
No impact.	No impact as such, although bus/car mix could respond to real- time information (e.g., less bus congestion if buses with no reservations hear that parking lot is full & make other arrangements for their passengers to visit FOMC, such as water transport).				
Operations	Environmental Impact				
FOMC would need to maintain any traveler-information systems not run by partners: its own radio, web site, call-in recording, and possibly VMS.	Placement of VMS, possible radio antennas.				
Financia	Matters				
Funding required for system design and development, and/or participation in partners' real-time systems.					

# Appendix C: Transportation Elements: Screened Roster and Status

	Surface Transit Water Transport		Congestion	Pedestrian - Bicycle	Reservations - Parking	Travel Information
1	Creation of bus drop-off point within FOMC	Single service operating to FOMC, and generally in the Northwest Harbor	Steinweg trucks	Marked bicycle route from Inner Harbor through Locust Pt. to FOMC	Improved reservation system for bus/tour groups	Improved FOMC signage/wayfinding in/around Baltimore
Status - analysis	Describe physical requirements; operators and vehicles who would use it; approximate projected demand. <b>VALUE:</b> safe arrival of visitors, vis. Exp. & interpretation.	Describe City's needs/process; technical elements of service; strawman schedule; ROM operating costs; ROM demand projections. <b>VALUE:</b> more efficient, frequent service for more riders.	Description of partnership requirements, infrastructure modifications, rerouting of trucks. <b>VALUE:</b> congestion safety on Wallace Street/Fort Avenue.	Identify 1-2 potential routes for marked lanes; describe work and partnership requirements; describe safety and other limitations and likely users. <b>VALUE:</b> transportation alternative for visitors and local users.	Describe requirements of new reservation system (technology, workflow, staffing, cost). Identify data-mining possibilities, additional subsidiary benefits. <b>VALUE:</b> Better group management, better data availability for planning.	Identify additional locations for existing signs; describe new signage that could be designed, created and identify locations for posting. Identify signage partnerships. Research similar overcrowding/ congestion situations at other national parks and tourist/cultural facilities. <b>VALUE:</b> Better visitor wayfinding and use of transportation options.
2	Schedule integration with water transport service		Improved bus parking at FOMC	Connection to other planned/existing bike/ped. trails	Require reservations for bus/tour groups (to enable bus access)	Increased park outreach and communications
Status - analysis	Identify potential partners; intermodal transport nodes; transfer environment/ time; and schedule descriptions. <b>VALUE:</b>		Examine bus statistics and analyze [2] scenarios for increased #s of bus spaces at FOMC. Drive through parking (by CAP). <b>VALUE:</b> fewer overflow situations, safer egress from parking slots.	Identify route specifics of planned paths/lanes with Balto. Planning Dept. and others; describe connectivity to FOMC, including under bike/ped. element #1. <b>VALUE:</b> improved connection to other Maryland/Baltimore historic/cultural sites, encouragement of noncar travel.		Determine what new/improved outreach materials park would need; bolster existing message or send new message? Determine means of increasing or improving circulation of outreach material. <b>VALUE:</b> Reach more visitors; provide additional information on transportation and trip planning.

Appendix C: Transportation Elements: Screened Roster and Status (Continued)

		Surface Transit	Water Transport	Congestion	Pedestrian - Bicycle	Reservations - Parking	Travel Information
3		Transfers and fare/pass reciprocity with water transport service		Bus overflow parking off- site (MPA lot, BACVA plans)	Marked path inside FOMC from gate to new E/A facility	Allow cars to park at FOMC for water transport origination trips	Increased partner outreach and communications
	Describe past implementation of this idea, likely partners, finance mechanism(s), strawman fare structure. <b>VALUE:</b> more attractive service for visitors.		Analyze likely needs, given status quo for FOMC bus parking and "Congestion" element #2 scenarios. Operational matters e.g., (control of access into MPA lot). Sketch of possible bus parking configuration in overflow lot. Describe BACVA guidance and options. VALUE: reliable off-site parking, reduced street congestion.	requirements and Class C cost estimate. <b>VALUE:</b> improved bike safety within FOMC,	Even with off-site parking in use, impractical because of FOMC hours, security considerations, and stranding problems.	Same as "Travel Information" element #2, except that new, additional, or improved materials would be produced and distributed by partners, not the park. (Also, work with partners to ensure that information provided is consistent with their outreach activities.)	
4	4	FOMC operates/contracts own shuttle from Inner Harbor	Improved ADA dock access at FOMC and other city landings	Reconfiguration of main gate traffic controls/staffing	Bicycle accommodations at new E/A facility		Provision of real-time traveler information
Charles	Status - analysis	Eliminated: impractical for FOMC operations; operational subsidies not allowed and ownership (e.g., GOCO) highly unlikely.	of needs for providing ADA access there. <b>VALUE:</b> safer access to/from boats for ALL	Description of problem (traffic flows and safety); (2) sketches of revised configurations (1- and 2-way traffic) (BH/Zick); description of improvement. <b>VALUE:</b> safety improvement for vehicles, bikes, pedestrians; also, less damage to historic structure.	Description of racks and other amenities, Class C cost.  VALUE: encouragement of bike use into the park, and control of biking within the park.		Describe real-time traveler- information services that could be provided, and determine hardware, staffing, workflow, cost requirements. Determine partnership possibilities. <b>VALUE</b> : Better, up-to- the-minute traveler information; better congestion management.

# Appendix C: Transportation Elements: Screened Roster and Status (Continued)

	Surface Transit	Water Transport	Congestion	Pedestrian - Bicycle	Reservations - Parking
5	Collaboration on shuttle with Greater Baltimore History Alliance / Museum of Industry		Construction of separate exit road along north boundary (abutting USNR property): exit at either maintenance gate or Nimitz	Bicycle stowages onboard water taxis and buses.	
Status - analysis	Revisit contact w / GBHA, develop strawman service characteristics, and FOMC partnership obligations.  VALUE: linkage of FOMC to other cultural & historic sites, particularly in west end of Baltimore.	Technical description of (2) such services (boats and speeds), with strawman schedule, ROM yearly operating costs, and demand projections with simple sensitivity analysis. <b>VALUE:</b> more attractive service with better headways and transit times.	turnaround (BH/Zick); descrip-tion of new traffic flows; partnership needs (MPA, MTA, USNR Center). <b>VALUE:</b> safer traffic at front gate,	Describe technical and space requirements in both modes, including boarding and stowage operations. <b>VALUE:</b> encourages intermodal non-POV transportation, both to the park and elsewhere. Eliminated from consideration (impractical).	
6	MTA No. 1 bus dropoff inside FOMC	Higher-frequency Outer Loop service	Reduce on-site car parking and enhance off-site overflow arrangements		
Status - analysis	scriedule, ruei consumption.	Eliminated from further consideration; not a desirable service/schedule. Works very poorly now due to transfers and overly long transit times.	Analyze car parking data and needs, including frequency of overflow; identify on-site and offsite overflow options; sketch MPA lot with [50] overflow car parking spots. <b>VALUE</b> : green space in FOMC, better planning for overflow needs.		
7			Reconfiguration of Wallace Street, adjacent to FOMC main wall		
Status - analysis			Interior concept work by CAP; sketches of existing gate area/Nimitz Road to be used as park exit (see No. 5, above), potential reconfiguration of Wallace Street, and MTA bus turnaround (BH/Zick); description of new traffic flows; partnership needs (MPA, MTA, USNR Center). VALUE: safer traffic at front gate, improved view experience for entering visitors, improved use of Wallace Street.		